Date of Application, 26th Mar., 1889
Specification Accepted, 18th May, 1889

A.D. 1889, *26th March*. N° 5177.

COMPLETE SPECIFICATION

A Device for Making Continuous Warm or Hot Applications to the Body.

I, Dexter M. Small, Attorney, of the City and County of Providence, in the State of Rhode Island and United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

The object of this invention is a new or improved device for making continuous warm or hot applications to any part of the body by means of hot water.

Referring to the accompanying drawing,

Fig. 1. is an elevation of the said device, and

Fig. 2. a longitudinal section of the part B, Fig. 1.

The part B is made of two slightly concave plates, preferably of metal, having a space or chamber between them for a thin sheet of water to circulate through, from some external source around the end of the partition *b* through the tubes *c* and *d*, Fig. 1.—It is important, that the part B (abdominal appliance) be very thin, as represented, so as to hold as little water and be as light as possible, the diameter of the tubes *c* and *d* being, as seen, much greater than the thickness of the appliance, to the top of which they are secured over an opening therein sufficiently large to ensure proper circulation. It is also important to have the partition *b* enough shorter than the appliance (about 2 inches shorter) so that if a bubble of air or a little steam should chance to get into the appliance, it would not obstruct the circulation, whatever its position, as it otherwise would on account of the appliance being so shallow.

A is the receptacle (preferably constructed with an enlarged base and top and with a contracted intervening neck) in which the water is heated and which, for this purpose, can be placed over a lamp or gas burner,—the water, when heated, passing by a well known principle, out through the upper tube C and back through the lower one D, being connected with the part B by the flexible tubes E and F of any desired length. In filling the apparatus with water, the part B should be suspended from the receptacle by these flexible tubes, so the air can freely escape from it (the appliance) as the water enters, and when the receptacle is filled a little above the upper tube or outlet C, the part B should then be placed higher than the receptacle, so the water will commence to circulate through it as soon as heat is applied to the latter, there being no danger of the water overflowing the receptacle, since the appliance (part B) is air-tight. The receptacle is represented with only one set of tubes, consisting of one upper (outlet) and one lower (inlet) tube, which is sufficient to illustrate my invention, though it can be constructed with two or more sets, so that different appliances can be used at the same time when necessary for different parts of the body.

The different appliances may vary in shape and construction, but each must have an inlet and an outlet tube, properly arranged for the purpose set forth.

The object of the special construction of the receptacle above specified is to secure a large heating surface with the smallest capacity consistent with a sufficient distance between the tubes C and D to facilitate the circulation—it being obvious, that the less water used with the same heating surface, the less time will be required to heat it, which is often a matter of great importance.

Having now particularly described and ascertained the nature of this invention and in what manner the same is to be performed, I declare, that what I claim is :

1) A device for making continuous warm or hot applications to the body, which consists of a receptacle for heating water, a hollow air-tight appliance suitable for contact with the person, and flexible tubes E and F connecting the appliance and receptacle, all constructed and combined so as to operate substantially as set forth.

2) The receptacle A constructed with an enlarged base and top separated by an intervening neck, and having one or more sets of tubes C and D, all substantially as and for the purpose set forth.

3) The appliance B constructed with a shallow chamber having a central partition *b* therein, extending nearly the entire length thereof, together with two tubes C and D, one on each side of this partition, all substantially as and for the purpose set forth.

Dated this 26th day of March 1889.

DEXTER M. SMALL.
By Huelser & Co.,
His Agents.

LONDON: Printed for Her Majesty's Stationery Office,
By DARLING AND SON, LTD.

1889.

WELLCOME LIBRARY INSTITUTE

A.D. 1889. MARCH 26. Nº 5177.

SMALL'S COMPLETE SPECIFICATION.

(1 SHEET)

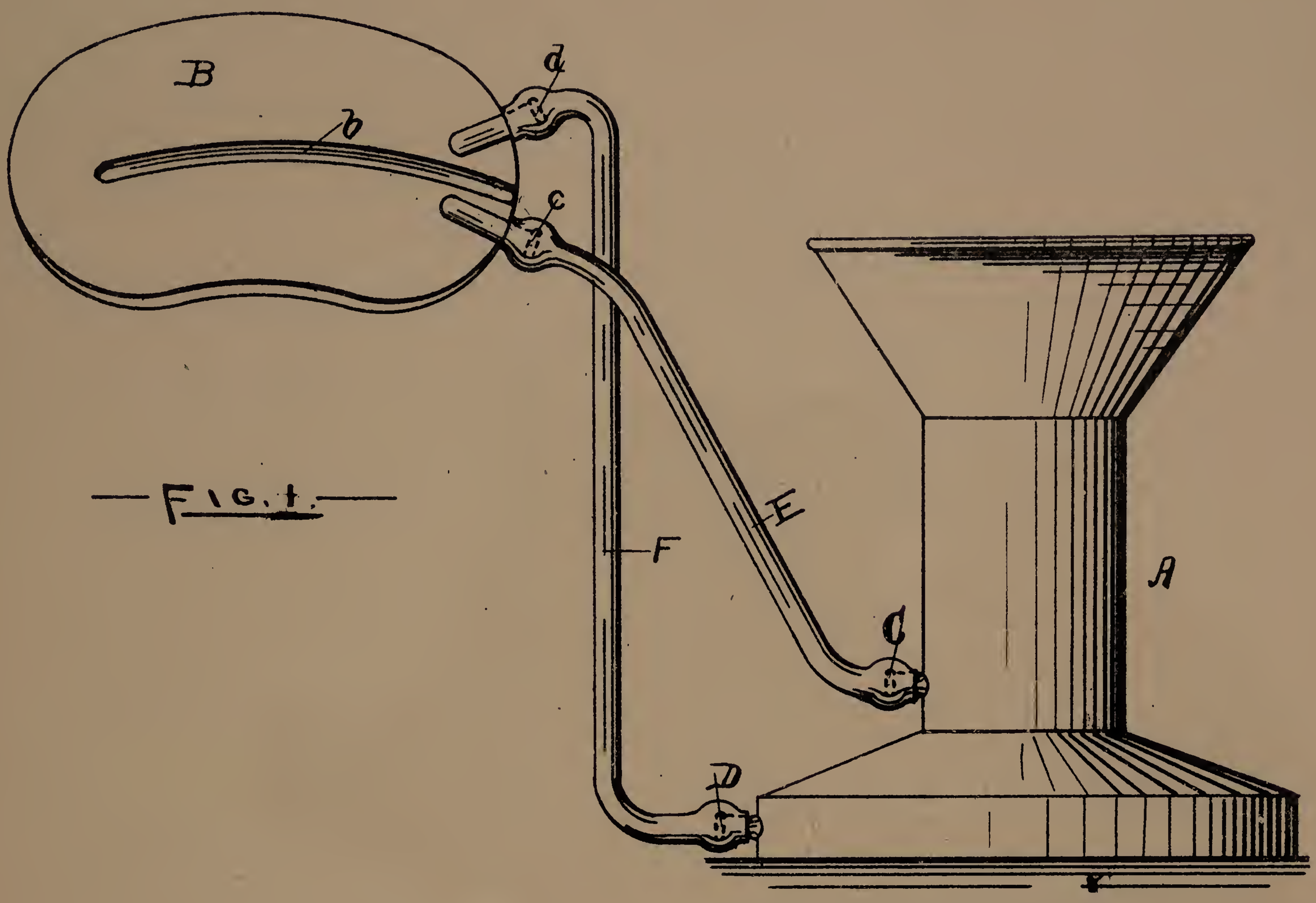

FIG. 1.

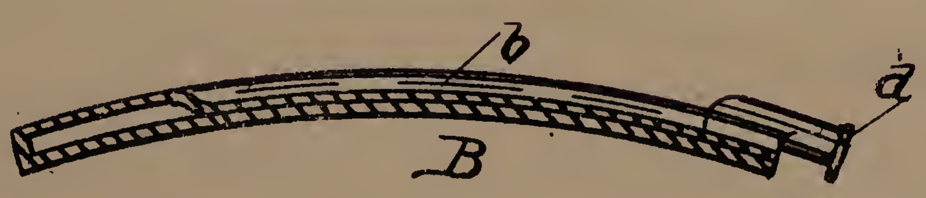

FIG. 2.

[This Drawing is a reproduction of the Original on a reduced scale]

LONDON. Printed by DARLING and SON Ld.
for Her Majesty's Stationery Office. 1889.

Malby & Sons, Photo-Litho.